



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R01-OAR-2010-0198, FRL-9755-7]

#### Approval and Promulgation of Air Quality Implementation Plans; Connecticut; NO<sub>x</sub> Emission Trading Orders as Single Source SIP Revisions

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The EPA is proposing to approve a State Implementation Plan (SIP) revision submitted by the State of Connecticut. This revision allows facilities to create and/or use emission credits to comply with the NO<sub>x</sub> emission limits required by Regulations of Connecticut State Agencies (RCSA) section 22a-174-22 (Control of Nitrogen Oxides) using NO<sub>x</sub> Emission Trading Orders (trading orders). The intended effect of this action is to propose approval of the individual trading orders to allow facilities to determine the most cost-effective way to comply with the state regulation. This action is being taken in accordance with the Clean Air Act.

**DATES:** Written comments must be received on or before **[Insert date 30 days after publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID Number EPA-R01-OAR-2010-0198 by one of the following methods:

1. [www.regulations.gov](http://www.regulations.gov) : Follow the on-line instructions for submitting comments.
2. E-mail: [dahl.donald@epa.gov](mailto:dahl.donald@epa.gov)

3. Fax: (617) 918-0657

4. Mail: “Docket Identification Number EPA-R01-OAR-2010-0198”, Donald Dahl, U.S. Environmental Protection Agency, EPA New England Regional Office, Office of Ecosystem Protection, Air Permits, Toxics, and Indoor Programs Unit, 5 Post Office Square - Suite 100, (Mail code OEP05-2), Boston, MA 02109 - 3912.

5. Hand Delivery or Courier. Deliver your comments to: Donald Dahl, Air Permits, Toxics, and Indoor Programs Unit, Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, 5 Post Office Square, 5th floor, (OEP05-2), Boston, MA 02109-3912. Such deliveries are only accepted during the Regional Office’s normal hours of operation. The Regional Office’s official hours of business are Monday through Friday, 8:30 to 4:30 excluding legal holidays.

*Instructions:* Direct your comments to Docket ID No. EPA-R01-OAR-2010-0198. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through [www.regulations.gov](http://www.regulations.gov), or e-mail, information that you consider to be CBI or otherwise protected. The [www.regulations.gov](http://www.regulations.gov) website is an “anonymous access” systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov) your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you

submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

*Docket:* All documents in the electronic docket are listed in the [www.regulations.gov](http://www.regulations.gov) index.

Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form.

Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, 5 Post Office Square, Suite 100, Boston, MA. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30 excluding legal holidays.

In addition to the publicly available docket materials available for inspection electronically in the Federal Docket Management System at [www.regulations.gov](http://www.regulations.gov), and the hard copy available at the Regional Office, which are identified in the **ADDRESSES** section of this Federal Register, copies of the state submittals are also available for public inspection during normal business hours, by appointment at the State Air Agency. The Bureau of Air

Management, Department of Environmental Protection, State Office Building, 79 Elm Street, Hartford, CT 06106-1630.

**FOR FURTHER INFORMATION CONTACT:** Donald Dahl, Air Permits, Toxics, and Indoor Programs Unit, Office of Ecosystem Protection, U.S. Environmental Protection Agency, EPA New England Regional Office, 5 Post Office Square, Suite 100, (OEP05-2), Boston, MA 02109-3912, phone number (617) 918-1657, fax number (617) 918-0657, e-mail [Dahl.Donald@epa.gov](mailto:Dahl.Donald@epa.gov).

#### **SUPPLEMENTARY INFORMATION:**

Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA.

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### **I. Background and purpose.**

On August 18, 2000, December 12, 2002, July 1, 2004, and January 13, 2006, the State of Connecticut submitted formal revisions to its State Implementation Plan (SIP). These SIP revisions consist of 149 source-specific trading orders that allow 50 sources to trade emission credits in order to comply with state regulations for reducing nitrogen oxide (NO<sub>x</sub>) emissions. We previously approved source-specific trading orders issued by Connecticut under this program on September 28, 1999 (64 FR 52233) and March 23, 2001 (66 FR 16135).

### **II. What action is EPA proposing in today's notice?**

Today, EPA is proposing to approve 149 NO<sub>x</sub> Emission Trading Orders that will allow facilities in Connecticut to generate and or use emission credits for compliance with the NO<sub>x</sub> emission limits that were established as part of Connecticut's strategy to lower ozone levels, also known as reasonable available control technology (RACT). EPA is not taking action on some of the orders included in the July 1, 2004 submittal: Trading Order 8021 issued to Pfizer, Trading Order 8246 issued to Sikorsky Aircraft, Trading Order 8110A issued to Yale University and Consent Order 7019A issued to Hamilton Sundstrand Corporation. EPA is also not taking action

on the Creation Notice Nos. NJ-1, NJ-2, and NJ-4 included in the August 18, 2000 submittal.

EPA will take action on these orders and creation notices at a later date. Lastly, EPA is not taking action on Trading Orders 8115, Modification 1 and 8115A issued to University of Connecticut in Mansfield because these trading orders were superseded by Trading Order 8115B which was included in the July 1, 2004 submittal.

### **III. What facilities are affected by today's action?**

EPA is proposing to approve NO<sub>x</sub> emission trading orders for the facilities listed in the table below.

<b>Trading Order Number(s)</b>	<b>Name of Facility</b>	<b>Facility Location</b>
1494A, 8116 Modification, 8116A, 8116B	Connecticut Resources Recovery Authority	Hartford
1494 Modifications 2, 3, 4, 5, and 6	Connecticut Light and Power	Branford, Greenwich, Hartford, Montville, Middletown, Milford, Preston, Norwalk, and Torrington
8154 Modifications 1, 2, and 3, 8154A	Combustion Engineering	Windsor
1626, 1626 Modification 1, 8247	Borough of Naugatuck	Naugatuck
8159, 8181, 8181A, 8181A Modification 1, 8219, 8219A, 8219A Modification 1, 8251, 8251 Modification 1	Connecticut Light and Power/ Devon Power LLC	Milford
8109	Hamilton Sundstrand	Windsor Locks
8093A, 8093B, 8093C, 8093C Modification 1, 8136, 8136A	Pfizer	Groton
8119 Modification, 8119A, 8119A Modification 1	City of Norwich, Department of Public Utilities	Norwich
8092 Modification, 8103 Modifications 1 and 2, 8177 Modification 1, 8241, 8241 Modification 1, 8242, 8243, 8244, 8244 Modification 1, 8253, 8253 Modification 1	United Illuminating/Wisvest-Connecticut LLC/PSEG Power Connecticut LLC	Bridgeport

8115 Modification 2, 8115B	University of Connecticut	Storrs
8107 Modifications 1 and 2, 8152, 8152 Modification, 8152A, 8221, 8221A, 8222, 8222A	Northeast Nuclear Energy/Dominion Nuclear	Waterford
8180, 8180 Modification 1, 8180A, 8180A Modification 1	Connecticut Jet Power	Branford, Greenwich, and Torrington
8114 Modifications 1 and 2, 8114A	CYTEC Industries	Wallingford
8117, 8117A, 8117B	Sprague Paperboard	Versailles
8157, 8160, 8162, 8182, 8182A, 8182A Modification 1, 8213, 8213A, 8213A Modification 1, 8214, 8214A, 8214A Modification 1, 8215, 8215A, 8215A Modification 1, 8227, 8227A, 8227A Modification 1	Connecticut Light and Power/Middletown Power LLC	Middletown
8156, 8161, 8183, 8183A, 8183A Modification 1, 8216, 8216A, 8216A Modification 1, 8217, 8217A, 8217A Modification 1	Connecticut Light and Power/ Montville Power LLC	Montville
8158, 8184, 8184A, 8184A Modification 1, 8218, 8218A, 8218A Modification 1	Connecticut Light and Power/ Norwalk Power LLC	Norwalk
8134, 8134A, 8248	United Technologies	East Hartford
8175, 8175 Modification 1, 8175A, 8175A Modification 1	Northeast Generation Company	Berlin
8102 Modification, 8153, 8176 Modification 1, 8240, 8240 Modification 1, 8243	United Illuminating/Wisvest-Connecticut LLC/PSEG Power Connecticut LLC	New Haven
8220, 8220A, 8220A Modification 1	Bristol Meyers Squibb	Wallingford
8124, 8124A	Stone Container	Uncasville
8120, 8120A	Sikorsky Aircraft	Stratford
8137 Modifications 1 and 2, 8137A	AlliedSignal and U.S. Army Tank	Stratford
8188	Allegheny Ludlum	Wallingford
8112, 8112A, 8112A Modification 1, 8201CC	United States Naval Submarine Base	Groton

8230	Jacobs Vehicle Systems	Bloomfield
8110 Modification	Yale University	New Haven
8123 Modification, 8123A	Algonquin Gas Transmission	Cromwell
8250, 8261	Algonquin Windsor Locks	Windsor Locks
8249, 8249 Modification 1	Capitol District Energy Center	Hartford
8094 Modification	Ogden Martin	Bristol
8095 Modification	American Ref-Fuel	Preston
8100 Modification	Bridgeport Resco	Bridgeport
8101 Modification	Connecticut Department of Mental Health and Addiction Services	Middletown
8111 Modification	Uniroyal Chemical	Naugatuck
8118 Modification	South Norwalk Electrical Works	Norwalk
8130 Modification	Connecticut Department of Public Works	Newtown
8132 Modification	Bridgeport Hospital	Bridgeport
8141 Modification	Town of Wallingford, Department of Public Utilities	Wallingford

#### **IV. Do these trading orders allow new facilities to use emission credits to comply with RACT?**

Most of the trading orders being approved today allow the same facilities in Connecticut to continue to create or use emission credits that were approved into the SIP on September 28, 1999 (64 FR 52233) and March 23, 2001 (66 FR 16135). Facilities that are having their trading orders approved for the first time are: Hamilton Sundstrand in Windsor Locks, Borough of Naugatuck in Naugatuck, Bristol Meyers Squibb in Wallingford, Capital District Energy Center in Hartford, Combustion Engineering in Windsor, Stone Container in Uncasville, and Sprague Paperboard in Versailles.

#### **V. How did EPA review and evaluate these trading orders?**

EPA issued a guidance document “Improving Air Quality with Economic Incentive Programs” (EIP Guidance). (See EPA-452/R-01-001, January 2001). This guidance applies to



discretionary emission trading programs (EIPs) that are submitted to EPA for approval as a revision of the State Implementation Plan to attain national ambient air quality standards for criteria pollutants. This guidance does not require review of previously approved programs and is not EPA's final action on these discretionary emission trading programs. EPA's final action on these discretionary emission trading programs occurs when EPA acts on a State's request to revise the SIP. The EIP Guidance is non-binding.

Fundamental principles that apply to all EIPs are integrity (meaning that credits are based on emission reductions that are surplus, enforceable, quantifiable, and permanent), equity, and environmental benefit. These fundamental principles can apply to an EIP in its entirety (the programmatic level) or to individual sources (the source-specific level). In addition, EIPs that allow sources to purchase credits to demonstrate compliance with reasonable available control technology (RACT) need to meet additional requirements specified in section 16.13 of the EIP Guidance. EPA evaluated the Connecticut trading orders against these three fundamental principles, additional requirements for sources subject to RACT, and applicable Clean Air Act requirements. Connecticut's trading orders are fully consistent with these fundamental principles and the requirements for sources subject to RACT, and EPA is approving these trading orders as part of Connecticut's SIP.

*A. What is EPA's analysis of the fundamental principle of integrity?*

The fundamental principle of integrity consists of the qualities of being surplus, enforceable, quantifiable, and permanent.

1. Integrity element one - surplus

Emission reductions are surplus if the reductions are not presently relied upon in any other air quality-related programs such as the SIP, SIP-related requirements such as transportation conformity, other adopted state measures not in the SIP, Federal rules that focus on reducing precursors of criteria pollutants such as new source performance standards, or a consent decree. Emission reductions measured by sources on a retrospective basis are surplus if the source's actual emissions are below its baseline allowable or historical actual emissions, whichever is lower, and the retrospective inventories reflect actual emission information as appropriate.

Each source-specific trading order Connecticut submitted creates emission reduction credits (ERCs), establishes a baseline of 1990, and sets emission limits based on the most stringent applicable emission rate. Credits are only generated when a permitted facility's emissions are below the emission rate and the baseline. Therefore the credits produced are in addition to reductions from other requirements of the Clean Air Act.

## 2. Integrity element two - enforceable

Emission reductions use, generation, and other required actions in the EIP are enforceable on a programmatic basis if they are independently verifiable, define program violations, and identify those liable for violations. For enforceability, both the State and EPA should have the ability to apply penalties and secure appropriate corrective actions where applicable. Citizens should also have access to all the emissions-related information obtained from the source so that citizens can file suits against sources for violations. Required actions must be practicably enforceable in accordance with other EPA guidance on practicable enforceability. At the source-specific level, the source must be liable for violations, the liable party must be identifiable, and

the State, the public, and EPA must be able to independently verify a source's compliance. The EIP Guidance outlines enforcement elements common to all trading EIPs in Chapter 6.0.

Each facility participating in trading NO<sub>x</sub> credits has been issued a source-specific trading order containing enforceable conditions for quantifying, recording, and reporting ERCs. Each trading order establishes the monitoring/testing protocol, quantifying emissions based on either a periodic stack test for developing an emission rate or continuous emission monitors that directly measure NO<sub>x</sub> emissions. Each trading order establishes reporting requirements which includes emissions based upon the approved monitoring/testing protocol, the number of credits the source generated, if any, and credits the source previously banked or purchased to cover its emissions. The State also reviews all of the sources subject to trading orders to determine which sources did not meet the specific conditions of their trading orders. Connecticut has authority to enforce the trading orders and the underlying RACT requirements of Regulations of Connecticut State Agencies (RCSA) section 22a-174-22 pursuant to RCSA section 22a-174-12. By approving these source-specific trading orders, they will become part of the SIP and be enforceable by both EPA and citizens.

### 3. Integrity element three - quantifiable

The generation or use of emission reductions by a source is quantifiable on a source-specific basis if the source can reliably calculate the amount of emissions and/or emission reductions occurring during the implementation of the program, and replicate the calculations. The EIP Guidance further states that when quantifying results, sources must use the same methodology used to measure baseline emissions, unless there are good technical reasons that this approach is not appropriate. Common elements for quantifying results of an EIP are

included in Chapter 5.0 of the EIP Guidance. All EIPs should incorporate provisions for predicting results, addressing uncertainty, approving quantification protocols, and emission quantification methods. For a reduction to be certified as an ERC, the reduction must be real, quantifiable, and surplus at the time the ERC is generated.

Each source-specific trading order contains a protocol for quantifying emissions. Continuous Emission Monitors (CEMs) are used to quantify emissions at electric generating units that are creating ERCs. CEMs at these facilities are also used to determine if the source needs to use ERCs to comply with NO<sub>x</sub> RACT. For sources without CEMs, the protocol requires the source to determine a NO<sub>x</sub> emission rate through stack testing. The source is also required to maintain fuel use records. Each trading order contains an equation that calculates NO<sub>x</sub> emissions on a mass basis using the results from the most recent stack test, CEMs data and/or fuel records. The generation and use of credits is therefore quantifiable.

#### 4. Integrity element four - permanent

To satisfy the EIP Guidance expectations for permanence, Connecticut's trading program must ensure that no emission increases (compared to emissions if there was no EIP) occur over the time defined in the SIP. On a source-specific basis, the permanence expectations are met if the sources participating in the EIP commit to actions or achieve reductions for a future period of time as defined in the EIP.

Each source-specific trading order expires five years from the issuance date. This allows Connecticut to determine every five years if emission trading is still the best mechanism for reducing NO<sub>x</sub> emissions at an individual source. Issuing new trading orders every five years also allows the State to take into account any new CAA requirements that become effective after the

initial trading order was issued.

On an annual basis, sources must report to Connecticut all ERCs generated and used. The State reviews each credit generated and assigns an identification number to each credit. The annual reports allow the State to determine both the generator and user of each credit. Because each credit generated receives an individual identification number, the State can reliably track their use.

*B. What is EPA's analysis of the fundamental principle of equity?*

The equity principle is composed of two elements--general equity and environmental justice.

1. Equity element one - general equity

General equity means that an EIP ensures all segments of the population are protected from public health problems and no segment of the population receives a disproportionate share of a program's disbenefits. EIPs should specifically protect communities from disproportionate impacts from emission shifts and foregone emission reductions.

Connecticut has determined the majority of emission credits are generated at a few electric generating units and some other large industrial boilers that have continuous emission monitors. These sources are large emitters that can economically decrease emissions on a large scale. However, sources using emission credits are much smaller emitters of NO<sub>x</sub> and are spread throughout the State. Therefore, while the benefit of emissions reductions may be higher in certain geographic areas, the impact from sources using credits will not severely impact one geographic area over another.

## 2. Equity element two - environmental justice

The environmental justice (EJ) element applies if the EIP covers VOCs and could disproportionately impact communities populated by racial minorities, people with low incomes, and/or Tribes. The Connecticut trading program does not allow emission trading of VOC credits. Therefore, today's actions allowing the trading of NO<sub>x</sub> emission credits does not create an EJ issue.

### *C. What is EPA's analysis of the fundamental principle of environmental benefit?*

All EIPs must be environmentally beneficial and can demonstrate this principle through more rapid emission reductions or faster attainment than would have occurred without the EIP.

The discrete emission reduction credit (DERC) EIP meets the expectations for the environmental benefit principle. The ability to generate DERCs provides an incentive for early compliance and more rapid emission reductions. Connecticut sources that create emission credits through their respective trading orders must discount the actual credits generated by 10%. In addition, Connecticut discounts the credits generated or used at some sources depending on certain conditions, such as an additional 10% discount rate for sources using stack tests in lieu of continuous emission monitors. These various discount rates result in greater emission reductions than would otherwise be achieved without trading, resulting in an environmental benefit.

### *D. What is EPA's analysis regarding the RACT sources?*

Sources must use the presumptive RACT limit in the baseline calculation. Sources are not allowed to use an alternative RACT limit in determining the baseline emission rate.

Connecticut's trading orders use the lower of actual emissions in 1990 or the RACT emission limit established for the specific source category, whichever is less. The source-specific trading orders do not use an alternative RACT emission rate.

The EIP Guidance also contains guidance for RACT emission limits with long averaging times and prohibits emission credits generated outside of the ozone season from being used during the ozone season.

Connecticut's trading orders limit sources requiring credits for excess emissions during ozone season to only use credits generated during ozone season.

#### *E. Conclusion*

EPA reviewed the source-specific trading orders with respect to the expectations of the EIP Guidance and the requirements of the Clean Air Act. EPA has concluded after review and analysis of the source-specific trading orders that they are approvable.

## **VI. PROPOSED ACTION:**

EPA is proposing to approve the Connecticut SIP revision for the NO<sub>x</sub> trading orders, which were submitted on August 18, 2000, December 12, 2002, July 1, 2004, and January 13, 2006. EPA is soliciting public comments on the issues discussed in this notice or on other relevant matters. These comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to the EPA New England Regional Office listed in the **ADDRESSES** section of this Federal Register.

The Agency has reviewed this request for revision of the Federally-approved State implementation plan for conformance with the provisions of the 1990 amendments enacted on November 15, 1990. The Agency has made the determination that the SIP revision is approvable because it is in accordance with the CAA and EPA regulations.

## **VII. Statutory and Executive Order Reviews**

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);



- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Reporting and recordkeeping requirements.

Dated: November 14, 2012.

H. Curtis Spalding,  
Regional Administrator,  
EPA New England.

